

I claim:

1. A hammermill feed device, the feed device comprising:

a generally cylindrical feed roller, the feed roller having a longitudinal axis, and a roller surface, with said feed roller having a mid-circumferential center plane centrally located and encircling said feed roller;

a plurality of gripper teeth in rows, said rows of gripper teeth extending from a left and right lateral edge of said feed roller toward said mid-circumferential center plane, with each row angled to be non perpendicular relative to said mid-circumferential center plane, with the angle of the rows on the left side of the roller center plane being equal and opposite to the angle of the rows on the right side of the roller center plane.

2. The hammermill feed device of claim 1 in which said plurality of rows are generally parallel to each other.

3. The hammermill feed device of claim 1 in which said gripper teeth are arranged in said rows in non-uniform teeth heights.

4. The hammermill feed device of claim 1 in which said rows extend from the left and right lateral edge substantially to the mid-circumferential center plane.

5. The hammermill feed device of claim 1 in which said rows extend from said left and right lateral edges, and extend toward said mid-circumferential center plane, and have a non-congruent center portion of gripper teeth rows.

6. The hammermill feed device of claim 1 in which said rows of gripper teeth are angled from said straight lines from 60-30 degrees.

7. The hammermill feed device of claim 1 in which said gripper teeth extend from said roller surface in a direction not parallel to a line extending radially from the longitudinal axis of the feed roller.

8. A hammermill feed device, the feed device comprising:

a generally cylindrical feed roller, the feed roller having a longitudinal axis, and a roller surface, with said feed roller having a mid-circumferential center plane centrally located and encircling said feed roller;

a plurality of gripper teeth in rows, said rows of gripper teeth extending from a left and right lateral edge of said feed roller toward said mid-circumferential center plane, with each row angled to be non perpendicular relative to said mid-circumferential center plane, with the angle of the rows on the left side of the roller center plane being equal and opposite to the angle of the rows on the right side of the roller center plane, with said gripper teeth are configured with non-uniform teeth heights.

9. The hammermill feed device of claim 8 in which said gripper teeth are configured in a repeating pattern of relatively smaller teeth and relatively larger teeth.